(1) Accession Number 7216537
(2) CAS Registry Number: 298-00-0
(3) SIC Code: 2879; 2842
(4) Material Name: $$$ METHYL PARATHION $$$
(5) Synonyms: PHOSPHOROTHOIC ACID; O-DIMETHYL-(M-NITROPHENYL)ESTER; DIMETHYL P-NITROPHENYL MONOTHIOPHOSPHATE; O,O-DIMETHYL -(P-NITROPHENYL) PHOSPHOROTHIOATE; O,O-DIMETHYL-O-(4-NITROPHENYL) PHOSPHOROTHIOATE; O-DIMETHYL-(P-NITROPHENYL) THIONOPHOSPHATE; DIMETHYL-P-NITROPHENYL THIONPHOSPHATE; O,O-DIMETHYL-P-NITRO-PHENYL THIOPHOSPHATE; DIMETHYL PARATHION; M-PARATHION; METHYLTHIOPHOS; P-NITROPHENYLDIMETHYLTHIONOPHOSPHATE; PARATHION METHYL
(6) Tradename (Company): AZOFOS; BAY 11405; DALF; ENT 17,292; FOLIDOL-80; 8056 HC; METACID 50; METACID; METAPHOS; METHYL-E 605; METRON; NITROX; NITROX 80; VOFATOX; WOFATOX
(7) Chemical Formula: (CH36)2(P:S)OC6H4NO2
(8) Species in Mixture: 100% OR 80% PURE
(9) Common Uses: INSECTICIDE FOR BOLL WEEVILS IN COTTON BELT
(10) Transport, Rail (%): 10.0
(12) Transport, Truck (%): 90.0
(14) Containers: 5 AND 55 GALLON LINED DRUMS
(15) General Storage Procedure: KEEP IN WELL VENTILATED AREA
(16) General Handling Procedure: WEAR RUBBER GLOVES FOR ALL HANDLING
(17) Production Sites: AMERICAN CYANAMID CO., WARNERS, NJ;
KERR-MCGEE CORP., HAMILTON, MS;
KERR-MCGEE CORP., LOS ANGELES, CA;
MONSANTO CO., ANNISTON, AL;
NORTHWEST INDUST., INC., BAYPORT, TX;
STAUFFER CHEM. CO., MT PLEASANT, TN;
(25) Detection Limit (Lab; Techniques,Ref) (ppm): > 1(PPB), ECGC, (D11)
(26) Standard Codes: EPA 311; CLASS B POISON; NFRA - 4,3,3; SUPERFUND DESIGNATED (HAZARDOUS SUBSTANCES) LIST.
(27) Flammability: QUITE. EXTREMELY FLAMMABLE IN XYLENE.
(30) Toxic Combustion Prod.: EXTREME DANGER, DO NOT ENTER.
(31) Extinguishing Method: SELF-CONTAINED BREATHING APPARATUS, RUBBER GLOVES, HATS, SUITS AND BOOTS MUST BE WORN. HIGHLY TOXIC FUMES ARE IMMINENT.
(32) Flash Point (C.): 46
(34) Explosiveness: MODERATE AT 120 DEGREES CELSIUS, HAZARDOUS IN XYLENE REACTIVE ONLY UNDER EXTREME CONDITIONS.
(37) Melting Point (C.): 37
(39) Boiling Point (C.): 109
(41) Solubility (ppm @ 25C): 50
(43) Specific Gravity: 1.358
(50) Persistency: THE HALF-LIFE ON COTTON LEAVES IS 1 HOUR (D1). IN RIVER WATER THERE WAS 10% LEFT AFTER 2 WEEKS AND NONE AFTER 4 WEEKS (D6). HYDROLYSIS HALF-LIFE (70 DEGREES CELSIUS, PH 6, ETHANOL) 8.4 HOUR. CHANGES BY A FACTOR OF; 10 FOR EACH PH UNIT AT PH > 8. UV RADIATION CONVERTS THIOPHOSPHORYL GROUP TO PHOSPHORYL GROUP (R102). LOW RESIDUAL LIFE IN SOIL (R203).
(51) Potential for Accumulation: NEGATIVE
(52) Food Chain Contamination Potential: NEGATIVE
(55) Mutagenicity: SUSPECTED OF REACTING WITH DNA
(56) Teratogenicity: TESTS WITH MICE PRODUCED CLEFT PALATE.
(58) Fresh Water Toxicity Text:

Conc.	Expos (Hr)	Specie	Effect	Test Environment	Reference

7.5	96	FATHEAD	TLM	HARD WATER	D1
.0048	48	DAPHNIA MAGNA	LC50		-187
8.3	96	FATHEAD	TLM	SOFT WATER	D1
5	24-96	STRIPED BASS	LC50	STATIC	R89
		LARVAE			
1.9	96	BLUEGILL	TLM		D4
5	24	STRIPED BASS	LC50	STATIC	R89
		FINGERLING			
8.5	24	BLUEGILL	LC50		G21
4.5	48-96	STRIPED BASS	LC50	STATIC	R89
		FINGERLING			
12	96	GOLDFISH	TLM	ACETONE OR ALCOHOL	E147
3.48-17.48	48	MOSQUITO FISH SUSCEPTIBLE	LC50		R209
9.8	96	GUPPY	TLM	ACETONE OR ALCOHOL	E147
> 5000	48	GREEN SUNFISH RESISTANT AND SUSCEPTIBLE	LC50	STATIC	R109
.0058	24	GHAOBORUS ASTICTOPUS	FOURTH INSTAR LARVAE		E126
> 5000	48	GOLDEN SHINER RESISTANT AND SUSCEPTIBLE	LC50	STATIC	R109
.04	72	CRAWFISH	TLM		E142
5.71	96	CHANNEL CATFISH	LC50	STATIC	R109
5.71	96	CATFISH	TL50	PREDICTED	G19
6.64	96	BLACK BULLHEAD	LC50	STATIC	R109
6.64	96	BULLHEAD	TL50	PREDICTED	G19
99	96	GOLDFISH	LC50	STATIC	R109
9.0	96	GOLDFISH	TL50	PREDICTED	G19
7.13	96	CARP	LC50	STATIC	R109
8.90	96	MINNOW	TL50	PREDICTED	G19
8.9	96	FATHEAD MINNOW	LC50	STATIC	R109
7.13	96	CARP	TL50	PREDICTED	G19
5.72	96	BLUEGILL	LC50	STATIC	R109
5.17	96	SUNFISH	TL50	PREDICTED	G19
5.17	96	LARGEMOUTH BASS	LC50	STATIC	R109
5.72	96	BLUEGILL	TL50	PREDICTED	G19
5.22	96	SMALLMOUTH BASS	LC50	STATIC	R109
5.22	96	BASS	TL50	PREDICTED	G19
2.75	96	RAINBOW TROUT	LC50	STATIC	R109
2.75	96	RAINBOW	TL50	PREDICTED	G19
4.74	96	BROWN TROUT	LC50	STATIC	R109
4.74	96	BROWN	TL50	PREDICTED	G19
5.3	96	COHO SALMON	LC50	STATIC	R109
5.30	96	COHO	TL50	PREDICTED	G19
3.06	96	YELLOW PERCH	LC50	STATIC	R109
3.06	96	PERCH	TL50	PREDICTED	G19
.0025-.023	24	PALEAMONETES KADIAKENSIS RESISTANT	LC50	STATIC	R109
.0037	24	PALEAMONETES KADIAKENSIS SUSCEPTIBLE	LC50	STATIC	R109

1.6	96	BLUEGILL	TL50	STATIC 23 DEGREES CELSIUS	R112
.005	96	MOSQUITO FISH	TL50	STATIC 24 DEGREES CELSIUS	R112
9.36	24	CHANNEL CATFISH	TL50	STATIC 26 DEGREES CELSIUS	R112
7.5-8	120	SIAMESE FIGHTING FISH	TL50	STATIC 25 DEGREES CELSIUS	R112.

(62) Salt Water Toxicity Text:

Conc.	Expos (Hr)	Specie	Effect	Test Environment	Reference
.001	24	SAND SHRIMP	LC50		E187
.015	24	GRASS SHRIMP	LC50		E187
.023	24	HERMIT CRAB	LC50		E187.

(64) Animal Toxicity Text:

Value	Time	Species	Param.	Route	Ref.
9		RAT	LD50	ORL	D1
25		RAT	LD50	ORL	D1
15		RAT	LD50	ORL	R1
10		BRD	LD50	ORL	R1
10		YOUNG MALLARD	LD50	ORL	E187
8.2		YOUNG PHEASANT	LD50	ORL	E187
600-750 PPM	5 DAY	MALLARD	LC50	ORL IN DIET	E187
100-120 PPM	5 DAY	PHEASANT	LC50	ORL IN DIET	E187
90-100 PPM	5 DAY	BOBWHITE	LC50	ORL IN DIET	E187
45-55 PPM	5 DAY	COTURNIX	LC50	ORL IN DIET	E187
100-200		MUS	LD50	ORL	APD
420		RBT	LD100	ORL	APD
67		RAT	LD50	SKN	APD.

(69) Acute Waterfowl Toxicity (ppm): 10

(70) Acute Waterfowl Toxicity (Reference): MG/KG\ LD50\ (D31)

(79) Major Species Threatened: IN APPLICATIONS AT CLEAR LAKE; CALIFORNIA, GNAT LARVAE AND ZOOPLANKTON SEEMED MOST AFFECTED. CRAWFISH AND ANIMAL LIFE.

(82) Inhalation Limit (Value): .1

(83) Inhalation Limit (Text): MG/M3

(86) Direct Contact: SORBED THROUGH SKIN

(100) Direct Human Ingestion (Mg./KGwt.):

(101) Direct Human Ingestion (Reference): (D12)

(102) Recommended Drinking Water Limits (ppm): .1

(103) Recommended Drinking Water Limits (Reference): (E233)

(108) Personal Safety Precautions: PROTECT AGAINST BOTH INHALATION AND ABSORPTION THROUGH THE SKIN. SELF-CONTAINED BREATHING APPARATUS MUST BE WORN. RUBBER GLOVES, HATS, SUITS AND BOOTS MUST BE WORN.

(109) Acute Hazard Level: FATAL ORAL DOSE IN MAN IS ESTIMATED TO BE 2.1 MG/KG. MOSQUITO FISH RESISTANT TO CHLORINATED HYDROCARBONS DISPLAY LC50 VALUES 1.3 TIMES AS HIGH (R209).

(110) Chronic Hazard Level: ADVERSE EFFECTS WERE NOTED IN RATS AND RABBITS AT A DOSE OF 1 MG/KG DAILY FOR 6 MO.

(111) Degree of Hazard to Public Health: HIGHLY TOXIC BY ALL ROUTES. POTENTIAL MUTAGENIC AND TERATOGENIC EFFECTS.
(112) Air Pollution: HIGH
(113) Action Levels: EVACUATE AREA. ENTER FROM UPWIND SIDE. NOTIFY LOCAL AIR AUTHORITY AND NATIONAL AGRICULTURAL CHEMICALS ASSOCIATION.
(114) In Situ Amelioration: CARBON OR PEAT MAY BE USED AS SORBENTS. SEEK PROFESSIONAL ENVIRONMENTAL ENGINEERING ASSISTANCE THROUGH EPA'S ENVIRONMENTAL RESPONSE TEAM (ERT), EDISON, NJ, 24-HOUR NO. 201-321-6660.
(116) Aval. of Countermeasure Material: CARBON - WATER TREATMENT PLANTS, SUGAR REFINERIES; PEAT - NURSERIES, FLORAL SHOPS.
(117) Disposal Method: 1) MIX WITH EQUAL PARTS SAND AND CRUSHED LIMESTONE IN OPEN INCINERATOR, WET DOWN WITH FLAMMABLE SOLVENT, AND IGNITE WITH EXCELSIOR TRAIN. STAY UPWIND. 2) MIX WITH EQUAL PARTS SAND AND CRUSHED LIMESTONE AND BURN IN INCINERATOR WITH AFTERBURNER AND ALKALINE SCRUBBER.
(118) Disposal Notification: CONTACT LOCAL AIR AUTHORITY
(121) Major Water Use Threatened: POTABLE SUPPLY, RECREATION.
(122) Probable Location and State of Material: WILL SINK TO BOTTOM AND DISSOLVE VERY VERY SLOWLY. WHITE CRYSTALLINE POWDER. FORMULATED AS EMULSIFIABLE CONCENTRATE, WETTABLE POWDER, DUST, TECHNICAL GRADE IS AMBER TO DARK BROWN LIQUID.
(123) Soil Chemistry: LEACHES FROM SOILS (R203). ADSORPTION BEST WITH HIGH ORGANIC OR CLAY CONTENT.
(124) Water Chemistry: HYDROLYZES RAPIDLY. SUBJECT TO UV ATTACK.
(126) Adequacy of Data: QUITE GOOD